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ABSTRACT

Research suggests that school reform initiatives have had minimal success in engendering systemic instructional improvement in schools. Within this evaluative context, this paper explores the means through which the paradigm of thinking about school instruction dominant in the profession (that is, Hirsch's "thoughtworld") potentially affects the actions of school-based personnel addressing instructional problems in school reform. The paper examines the implications of a year-long project for school-based reform that successfully improved remedial students' academic reading and affective performance in grades 3 and 4. The study follows the evolution of teachers' perspectives from one of initial concerns regarding the efficacy of a nonparadigmatic direct-instruction reading program, to strong advocacy for its expected student outcomes and the desirability of its design characteristics. The text interprets the teachers' prior instructional expectations and perspectives as barriers to change that reflected a dominant paradigmatic perspective. Accordingly, the paper offers a framework for incorporating consideration of research-based informational dynamics into the processes of school-based reform environments. Finally, the paper offers policy recommendations based upon the analysis presented that promise to enhance the effectiveness of school-based instructional improvement. (Contains 30 references.) (RJM)

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Leadership Issues Addressing Barriers to School-Based Instructional Reform: A Case Study Exploring the Role of E.D. Hirsch's "Thoughtworld" as a Factor in School Improvement [1]

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Abstract

This paper explores implications of a year-long project for school-based reform that successfully improved remedial students' academic reading and affective performance in grades three and four. Overviewed within the context of the study is an evolution of teachers' perspectives regarding their use of a "non-paradigmatic" direct instruction reading program (Corrective Reading) from one of initial concerns regarding its' effectiveness to strong advocacy regarding its' expected student outcomes and the desirability of its' design characteristics. Within a context of school-based decisionmaking, the paper interprets the evolution of teachers' prior instructional expectations and perspectives as barriers to change that reflected a dominant paradigmatic perspective (Kuhn, 1996) consistent with what E. D. Hirsch (1996) has called the educational "thoughtworld." In doing so, the paper offers a framework for incorporating consideration of research-based informational dynamics into the processes of school-based reform environments, in general, and associated instructional decisionmaking processes, in particular, in the form of leadership issues that are presently emerging from the literature. Finally, the paper offers policy recommendations based upon the analysis presented that promise to enhance the effectiveness of school-based instructional improvement.

The research literature (Education Week, 1997; Stedman, 1995) has generally recognized that the record of school reform initiatives conducted in recent years has had minimal success in engendering systemic instructional improvement in schools. Within this evaluative context, this paper explores in a preliminary fashion the means through which the paradigm of thinking about school instruction dominant in the profession (i.e., Hirsch's "thoughtworld") potentially affects the actions of school-based personnel addressing instructional problems in school reform. As school-based personnel become more actively involved in the decisionmaking process, the effectiveness of school reform is determined by the pedagogical knowledge (Corcoran & Goertz, 1995; Firestone 1993) upon which teachers and principals rely. Thus, the range of alternatives considered within the school reform process is necessarily

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constrained by the knowledge and belief systems held by teachers and others involved.

In a related view, Kuhn (1996) has argued that the dominant intellectual paradigm of any discipline is highly resistant to fundamental change. Consistent with this argument, Hirsch (1996) suggested that one possible explanation of the lack of success of current school reform initiatives is that their distinguishing characteristic has been that they are, in fact, all highly consistent with the previously established ideas within the field that, presumably, are also the underlying "causes" of present educational problems. Stated more directly, the implications from Hirsch's (1996) model applied to the process of school reform is that because schools operate within the accepted ideational framework of a dominant educational "thoughtworld" whose research foundations are weak, the majority of current reforms are manifestations of unproven practices (e.g., Carnine, 1995; Ellis & Fouts, 1997; Grossen, 1997a) that have limited potential for systemic improvement. Because the dominant educational paradigm accepts as credible only those reforms consistent with the established perspective with the end of preserving the status quo, the continuing failure of educational reform is likely to continue until school leadership strategies can be developed and implemented to overcome what is presently a significant barrier to effective decisionmaking for school reform success.

The purpose of this paper is first to overview the substantive findings of a successful school-based year-long instructional improvement project in which teachers used a non-paradigmatic but strongly research-based remedial reading program and, then, to identify implications for leadership issues based on the findings regarding the extent to which the accepted educational "thoughtworld" could be serving as a barrier to educational reform.

A School Improvement Scenario: Effects of Successful Use of a "Non-Paradigmatic" Instructional Approach on Teacher Expectations and Instructional Perspectives

The initial year of a school-based remedial reading project (Kaniuka, 1997) serves as the context for the issues addressed subsequently in this paper. In it, a direct instruction remedial reading program

(Corrective Reading: Decoding and Comprehension) was implemented with low achieving grade 3 and grade 4 predominately minority students. Although strongly research-based (e.g., Adams & Englemann, 1996; Grossen, 1997b), the characteristics of direct instruction reading programs are clearly anti- or non-paradigmatic with respect to the established educational thoughtworld as described by Hirsch (1996). Moreover, because their use is often associated with low achieving students, direct instruction programs commonly are considered to teach "low level" content in a rote fashion although they, in fact, actually do teach very sophisticated content that, in the present study, represented levels of achievement that far exceeded typical curriculum materials for average to above average students.

In reporting the multi-part study, Kaniuka (1997) first confirmed that the use of the Corrective Reading program resulted in higher student achievement in reading (as measured by State End-of-Grade Tests), more positive student attitudes toward reading, and higher student self-esteem in reading than comparable grade 3 and grade 4 students. This confirmed the effectiveness of the school improvement initiative. However, for the purposes here, what is important is how implementing the program affected teachers' expectations of student performance and their perspectives on the learning process during the course of the school year and the associated implications for instructional reform.

Using teacher journals maintained weekly throughout the school year, Kaniuka (1997) found that teachers' initial expectations of students were very low, presumably reflecting their prior experiences with similar students. In addition, because the characteristics of the Corrective Reading program were counter to what they previously accepted as "good instruction," teachers were very uncomfortable in initiating the program and expectant that it would not work. In fact, during the initial phase of the school year, teachers commonly reported problems they felt they were having and raised concerns that the program should be discontinued in the face of reassurances from the school principal.

However, after 4-6 weeks into the school year, teachers' attitudes, expectations, and perspectives began to change dramatically as the school year progressed. Then, instead of primarily evidencing concerns about the effectiveness of the program (and their capability to implement it), teachers began to focus attention on their growing proficiency in teaching skills, the rapid progress their students were

making, and the sophistication of the content and strategies their students were gaining. As the year progressed, teachers became strong advocates of the program and radically changed their perspectives regarding the characteristics of effective reading and thinking instruction.

To validate the interpretation of these findings, Kanuika (1997) also conducted several parallel studies. In the first, a new group of teachers from a sample of demographically varied elementary schools were presented with representative reading (decoding) and comprehension tasks from the levels of the Corrective Reading program being received by the group of very low-achieving grade 3 and 4 students in the original study above. In making judgments regarding the grade level appropriateness of the materials, these new teachers typically rated the Corrective Reading tasks as appropriate for average to above-average grade 5 to grade 7 students. Further, the teachers also estimated that fewer than 50% of their students at each of the grade ranges (grades 3-7) would be able to do the Corrective Reading tasks successfully. In fact, a subsequent analysis Kaniuka (1997) confirmed that the teachers implementing the program did display higher student achievement expectations than teachers in demographically comparable schools.

Given confirmation (from the above findings) that direct experience with the Corrective Reading program raised teachers' expectations of students and significantly changed their perspectives regarding the characteristics of "good" instruction, a final part of the research project by Kaniuka (1997) was undertaken to explore the potential role of teachers' prior "thoughtworld" perspectives in instructional decisionmaking. In this section, a new sample of teachers not familiar with Corrective Reading participated in a simulated preliminary evaluation of the program for subsequent consideration for adoption for students requiring remedial reading in their schools. (All teachers reported their schools had remedial reading problems to some degree.) Although far too detailed to summarize fully here, the major findings were that after inspection of the program series guide, not only did the majority of the new sample of teachers evidence little understanding of the program materials, but also more than 50% of the teachers rejected the program for further consideration for adoption. And, in analyzing the reasons offered , the majority of reasons reflected low student expectations and prior "thoughtworld"

perspectives of "good" instruction that caused them to conclude Corrective Reading would not be effective. In effect, the prior perspectives and experience "filtered" by those "thoughtworld" perspectives caused the majority of teachers to reject an instructional program proven to be highly effective in teaching advanced content and skills to students they had previously indicated their schools were presently ineffective in remediating.

Ideas of School Personnel as a Key Factor in School-Based Reform

Following Kuhn's (1996) concept of a paradigm, an important implication of the preceding "case study" scenario is that teacher's prior knowledge and perspectives may be expected to serve as barriers to school improvement whenever the characteristics of a potentially significant advancement are counter to what Hirsch (1996) as denoted the established "thoughtworld." Yet, despite the potential importance of this consideration as a leadership issue in school-based reform, it has been ignored in that literature which, alternately, has focused on two primary themes in addressing the role of site-based management in systemic educational reform (e.g., David, 1995-1996; Floden, Goertz, & O'Day, 1995; Wohlsetter, Kirk, Richardson, & Mohrman, 1997). The first popular theme primarily advocates organizational processes for conducting reform in schools, while the second theme emphasizes the interdependence of popular reform initiatives and the beliefs of educational practitioners within a professional school culture (while emphasizing the potential benefits of the first theme). However, despite the efforts to clarify these issues (e.g., Cuban, 1988; Fullan, 1996; Soodak & Podell, 1994; Tye, 1992) the present literature has shown that school-based decisionmaking considered as a primary school reform initiative has had minimal, if any, systemic effect on improving student achievement (Kaniuka, 1997; Lawton, 1996; Mohrman & Wohlsetter, 1994).

Within this dynamic context, however, as school-based personnel are seen as becoming more actively involved in decisionmaking processes, some researchers (Firestone 1993; Guskey & Petterson, 1995-1996) have begun to recognize that successful school reform is highly dependent upon the

informational capacity of these personnel to make effective instructional decisions rather than upon school organizational processes per se. Thus, increasing the capability of school-based practitioners to function in what have become increasingly site-based management-dominated educational systems is becoming recognized by some (e.g., Clark & Clark, 1996; Corcoran & Goertz, 1995) as an important factor in determining the success of school reform initiatives.

Ontology of School Reform as a Barrier to Effective Instructional Leadership

In considering the role of the "thoughtworld" as a barrier to effective reform, Hirsch's (1996) emphasis is upon the function of the ontology of the discipline as a system for symbolically representing and communicating knowledge which, in turn, serves to mediate the intellectual capacity of its' members (see Whorf, 1956). This analytic perspective and its associated mechanisms of operation within a discipline have been developed broadly by Kuhn (1996) within a context of the evolution of scientific theory. In doing so, Kuhn denoted the idea of a "paradigm" as the intellectual (e.g., symbolic) framework of a scientific discipline that encompassed the representation of accepted knowledge, along with all associated acceptable research issues and research methodology within which all accepted work in a discipline is to be conducted.

In analyzing the lack of success of present school reform initiatives, a primary point advanced by Hirsch (1996) is that the accepted network of educational ideas, what he has called the "thoughtworld," has served as an insurmountable barrier to successful reform by maintaining the dominance of the status quo. In doing so, he argues, the attention of the public and educational practitioners alike is directed away from considering implications of relevant "mainstream" research related disciplines (e.g., cognitive science, instructional design) that might result in student performance improvement in favor of accepted ideas advocated by the presently dominant educational establishment that, themselves, have no sound research base and a minimal track record of effectiveness.

From his perspective, Hirsch's (1996) recent analysis of school problems suggests that the dominance of the established educational ideas (i.e., "thoughtworld") is a plausible explanation for the lack of success of school reform initiatives. Consistent with his argument that "bad ideas drive out good ideas," a major need of school reform policy would be to develop strategies that facilitate school decisionmaking by placing greater weight on research-based pragmatic evidence of effectiveness rather than adherence to established ideas repeatedly associated with lack of success or a singular emphasis upon the mechanics of organizational processes. Thus, the question of the degree to which teachers' prior instructional perspectives affect the school-based instructional decisionmaking process is a potentially critical (and under-researched) factor that holds promise for being a key element in enhancing the success of the school-based reform process.

In considering the negative aspects of the ideas of the dominant paradigm (e.g., Kuhn, 1996) as applied to educational reform, it is also important to recognize that its' primary function within a research-based discipline is, in fact, facilitative, as long as it is consistent with established facts. This is because the paradigm under which a discipline operates represents a symbolic perspective on established research findings and proven strategies that produce such knowledge. In fact, according to Kuhn (1996), it is only the accumulated occurrence of anomalous events contrary to the accepted paradigmatic perspective that eventually leads to scientific revolution in the form of paradigmatic change.

In education, which, arguably, is not a research-based discipline, the function of the dominant paradigm (or "thoughtworld") is professional acculturation alone (e.g., the accepted teacher education "knowledgebase") rather than the codification of research findings and research practices. In this regard, Hirsch (1996) points to the role of professional organizations in educational certification and licensure as one of insuring a standardization of professional thinking. In considering a related argument by Johnson & Pennypacker (1982) that applications of scientific knowledge directly benefiting society are the major determinants of society's valuing of science, it is reasonable to expect that sound applications of research-based knowledge in education would be appreciated by the public as well. The difficulty regarding the reform of educational practice, however, is that since the established educational

"thoughtworld" is not research-based and has no track record of success in school improvement, it is likely to resist approaches to school problems whose characteristics do not meet standards of acceptable practice. In effect, because a research-based, effective, and transportable instructional application, such as Corrective Reading, is likely to be simply rejected out-of-hand or just ignored as an unimportant anomalous event by established authorities within the discipline (see Chinn & Brewer, 1994), it is likely to be treated similarly by educational practitioners who look toward authority for instructional leadership.

The Issue of Absolute Leadership Standards in School Reform

An important question having to do with school reform is whether it is possible to establish standards for the process of educational reform that would apply initially to the broad diversity of intellectual perspectives (including the established "thoughtworld"), that would place differential weight on successful outcomes, and that would be in a form that could be utilized by school practitioners. Much like methodological conventions provide standards of practice in a research discipline, such standards of leadership in education ideally could provide an ontological mechanism for guiding the school reform process that ultimately would be sensitive to results rather than rhetoric. And, of particular importance to school practitioners, both their actions and their thinking under such standards would be consistent with the evolution of a framework for educational knowledge that eventually is research-based. Thus, in relation to the substantive knowledge that represents the dynamics of the instructional processes in school settings that would be expected to evolve, the leadership standards representing the key characteristics of the process of reform through which this instructional knowledge would be applied and/or accumulated would be considered "absolute."

In suggesting the idea of standards of educational leaders, a recent article by Carnine (1995) has provided a preliminary framework. Presented in a context of California's dramatic decrease in student reading achievement associated with a decade-long adoption of a "whole language" language arts

curriculum, it is instructive that Carnine's (1995) suggestions were framed in answer to the question of what standards, if followed, would have precluded this premature statewide curriculum adoption. Considered more broadly within a context of school-based educational reform, Carnine's (1995) question addressed to school-practitioners could well have been "What approach to school-based instructional reform would have precluded the lack of systemic progress in your school?"

With some editorial license, the main thrust of Carnine's (1995) standards are (a) distinguishing innovative ideas from proven practices, (b) defining effectiveness of instructional reform initiatives in terms of student performance outcomes using assessment instruments that, in turn, meet established standards for validity and reliability, and (c) looking to successful school settings in which effectiveness has been demonstrated (and the associated research literature that has demonstrated success in school settings) as an initial and continuing focus of possible alternatives to be considered. Together, the standards suggested by Carnine (1995) provide a framework for facilitating the effectiveness of educational reform by practitioners by considering rhetoric-based alternatives which are not research-validated as proven practices as innovative ideas that might or might not prove effective when implemented.

In applying Carnine's (1995) standards, the possible processes that school practitioners might be considered "simplistic." However, when considered within a framework of systemic educational improvement set in the context of the lack of success of the educational reform movement, they are not. For example, using Carnine's standards as guideline, a school pursuing improvement might (a) identify (or be aware of) schools whose achievement is exemplary, with the goal of identifying the instructional curricula used; (b) identify schools that have successfully transformed their instructional curricula into one through which students have become "high achievers"; and (c) explore the associated research literature for research-validated school-application findings that are transferable to their school. Note, however, that the emphasis here is on the critical evaluation of each of these sources of information in terms of the assessment criteria used to establish success and the prior establishment of such success in school classroom settings. The implication for the evolution of systemic school improvement as a result

of following such a disciplined process is that schools would place a higher priority on approaches that work (because they have been demonstrated to do so) than on "thoughtworld"-based rhetoric having no such established research foundation.

Strategies for Improving Educational Reform Policy

It must be recognized that the preceding illustration of a possible process for applying Carnine's (1995) standards is itself "ontologically non-neutral" in the sense that it implies that all school instructional reform is inherently curricular. That is, if students are to learn in school, then an absolute constraint of what they are able to learn in school is determined by the curricular content and associated instructional strategies, articulated across their school years, that define their opportunity to learn. Although the preceding Carnine examples could have been offered in a context-free fashion, presenting them with a curricular emphasis is worthwhile if for no other reason than to make the point that the ontology of school reform is inherently a-curricular. That is, it is discussed primarily through the established "thoughtworld" in terms of organizational and instructional process independently of curriculum, a perspective that may also explain its' lack of success. This is an important consideration if for no other reason than non-paradigmatic approaches, such as Corrective Reading, that have a strong research base are primarily curricular solutions to instructional problems.

With this idea in mind, a number of researchers have begun to compile and document the effect of various approaches accessible to schools pursuing educational reform. For example, Ellis & Fouts (1997) have documented the lack of research foundation of many popular school improvement initiatives considered as innovations (e.g., brain research, self-esteem, thinking skills, multiple intelligence). In a more analytic fashion, Grossen, Coulter & Ruggles (1997) has provided a substantive and methodological critique of Reading Recovery that raises significant implications regarding its' value in systemic school improvement. Although it might be unrealistic to expect public school practitioners to independently discover such resources, it is not unreasonable for them to be interested is sharing the

implications of such resources for school reform when made aware of them. However, as long as the established "thoughtworld" prevails, schools are likely to have little interest in such knowledge.

In a related fashion, for purposes of illustration here, the family of direct instruction programs which includes Corrective Reading is a good example of research validated programs (see Adams & Englemann, 1996) whose systemic impact on educational practice has been, if any, minimal (Ellis & Fouts, 1997). Again, the fact that these programs teach high-level conceptual content and strategies in areas such as reading, thinking, writing, mathematics, and science with far greater success than expected - to students of all ability levels is not considered important in comparison to the fact that their design characteristics are contrary to those accepted as desirable by the established "thoughtworld." In this case, the message to practitioners via the "thoughtworld" is that conformity with the accepted characteristics of what has been designated as "good" instruction is more important than whether an approach is effective. For example, recent publications addressing reform initiatives illustrate the dominance of paradigmatically-acceptable reforms in terms of both instructional programs (e.g., Kentucky Department of Education, 1998; Slavin, 1997) or emphasis on reform process activities rather than student achievement outcomes (e.g., Wohlsetter et al, 1997). Clearly, without the knowledge of reform standards for leadership that emphasize achievement outcomes independently of the "thoughtworld", the restrictions inherent in the literature to which teachers have primary access to alternatives which are paradigmatically acceptable alternatives (specifically excluding alternatives which have been shown effective), inherently limits the effectiveness of school-based educational reform (Kaniuka & Vitale, 1998).

Given the present circumstances of educational reform and the dominance of the established "thoughtworld," only preliminary strategies from the standpoint of policy are appropriate to consider at this time. However, although preliminary, these strategies could begin to have an increasingly cumulative and positive effect on school-based reform, even in the face of a general indifference or antagonism of the established discipline itself. Such policy initiatives would emphasize each of three complementary settings: academic, K-12 school, and state departments of instruction.

At the academic level, schools and colleges of education could be encouraged to allow greater intellectual diversity into their teacher preparation and graduate training programs. At the K-12 school level, school-based leadership policies could support and encourage collaborative school-based initiatives that pursue the implementation of Carnine's (1995) standards for school reform. And, at the state department level, leadership could support the pursuit of collaborative K-12 school and university-based initiatives implementing Carnine's (1995) standards, including continuing dissemination of success in schools, research on the organizational culture associated with the reform movement, and on strategies for raising teacher expectations and lessening the pervasive impact of the established "thoughtworld" on professional problem solving by practitioners. Although the specifics for initiating such efforts are not a small matter, it not unreasonable to expect that progress in one of the three areas would engender movement in the others.

Considered together within the context of this paper, the preliminary strategies outlined above, if pursued with sufficient discipline, at least have the potential to move the level of school reform toward incorporating what is known but not acceptable to the "thoughtworld" about the instructional problems it is purporting to solve. In this sense, efforts to increase the rate of success of instructional reform will either minimally selectively strengthen aspects of the established "thoughtworld" at the expense of its' other aspects, or, in the case of radical improvements in schooling, result in an accumulation of purposefully constructed anomalous events that causes the established "thoughtworld" to be discarded in favor of a perspective that proves more useful.

References

Adams, G. L., & Engelmann, S. (1996). Research on direct instruction: 25 years beyond DISTAR. Seattle, WA: Educational Achievement Systems.

Carnine, D. (1995, October 11). Standards for educational leaders: Could California's reading results lead the way? Education Week, 24, 52, 42.

Corcoran, T., & Goertz, M. (1995). Instructional capacity and high performance schools. Educational Researcher, 24(9), 27-31.

Chinn, C., & Brewer, W. (1993). The role of anomalous data in knowledge acquisition: A theoretical framework and implications for science instruction. Review of Educational Research, 63(1), 1-49.

Clark, D., & Clark, S. (1996). Better preparation of educational leaders. Educational Researcher, 25(8), 18-20.

Cuban, L. (1988). A fundamental puzzle for school reform. Phi Delta Kappan, 70(5), 341-344.

David, J. (1995-1996). The who, what, and why of site-based management. Educational Leadership, 53(4), 4-9.

Education Week. (1997, January 22). Quality counts a report card on the condition of public education in the 50 states, 26, (Suppl.), Washington, DC: Author.

Ellis, A. K., & Fouts, J. T. (1997). Research on educational innovations. (2nd. ed.). Larchmont, NY: Eye on Education.

Firestone, W. (1993). Why professionalizing teaching is not enough. Educational Leadership, 50(6), 6-11.

Floden, R., Goertz, M., & O'Day, J. (1995). Capacity building in systemic reform. Phi Delta Kappan, 77(1), 19-21.

Fullan, M. (1996). Turning systemic thinking on its head. Phi Delta Kappan, 77(6), 420-423.

Grossen, B., Coulter, G., & Ruggles, B. (1997). Reading recovery: An evaluation of the benefits and cost [On-Line]. Available: darkwing.uoregon.edu/~bgrossen/rr.htm

Grossen, B. (1997a). What does it mean to be a research-based profession? [On-Line]. Available: http://darkwing.uoregon.edu/~bgrossen/resprf.htm

Grossen, B. (1997b). The research base for reading mastery [On-Line]. Available: http://darkwing.uoregon.edu/~adiep/rdgxt.htm

Guskey, T., & Petterson, K. (1995-1996). The road to classroom change. Educational Leadership, 53(4), 10-15.

Hirsch, E. D. (1996). The schools we need: Why we don't have them. NY: Doubleday.

Johnson, J.M., & Pennypacker, H.S. (1982). Strategies and tactics of human behavioral research. (2nd ed.). Earlbaum.

Kaniuka, T. (1997). The impact of improving student achievement on teachers' expectations and decisionmaking: Implications for the school reform process (Doctoral dissertation, East Carolina University, 1997).

Kaniuka, T., & Vitale, M.R. (1998, April). Limitations of Site-Based Management in a Standards-Driven School Reform Environment: Policy Implications of Teachers' Prior Perspectives on Effective

Instructional Decisionmaking. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

Kentucky State Department of Education. (1998). Results based showcase, Frankfort, KY: Author.

Kuhn, T., (1996). The structure of scientific revolutions (3rd ed.). Chicago: University of Chicago.

Lawton, M. (1996, October 30). Study: Site-based management has no effect on scores. Education Week, 7.

Mohrman, S., & Wohlsetter, P. (1994). School-based management: Organizing for high performance. San Francisco: Jossey-Bass.

Slavin, R. (1996). Reforming state and federal policies to support adoption of proven practices. Educational Researcher, 25(9), 4-5.

Soodak, L., & Podell, D. (1994). Teachers' thinking about difficult to teach students. Journal of Educational Research, 88(1), 44-51.

Stedman, L. (1995). The new mythology about the status of US schools. Educational Leadership, 52(3). 80-85.

Tye, K. (1992). Restructuring our schools beyond the rhetoric. Phi Delta Kappan, 74(1), 8-14.

Whorf, B. (1956). Language, thought, and reality; selected writings. Cambridge, MA.: Technology Press.

Wohlsetter, P., Kirk, A., Richardson, P., & Mohrman, S. (1997). Organizing for successful school-based management. Alexandria, VA: Association of Supervision and Curriculum Development.